



#27

F A X C O V E R

Date: 27 January 2003

Number of pages (including cover): 2

To: Janet Higgins, U.S. Patent and Trademark Office

Fax No.: 703.305.4372

Serial No.: 09/337,584

Title: METHODS OF TREATING ALLERGIC AND ASTHMATIC DISORDERS USING IMMUNOSTIMULATORY OLIGONUCLEOTIDES

From: Alan W. Steele, M.D., Ph.D.

Direct dial: 617.573.7857

Our File #: C01039.70020.US

RECEIVED
JAN 27 2003
Office of Patent Publication
Director's Office

CERTIFICATE OF FACSIMILE TRANSMISSION 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being transmitted via facsimile to the attention of Examiner Janet Higgins, FAX number 703.305.4372, at the United States Patent and Trademark Office, Washington, D.C. 20231, in accordance with 37 C.F.R. §1.6(d), on the 27th day of January, 2003.

Alan W. Steele, M.D., Ph.D.

ORIGINAL DOCUMENTS WILL NOT BE MAILED.

MESSAGE: Transmitted herewith is the clean copy of Table 2 (page 23) you requested.

This transmission contains confidential information intended for use only by the above-named recipient. Reading, discussing, distributing, or copying this message by anyone other than the named recipient, or his or her employees or agents, is strictly prohibited. If you have received this fax in error, please notify us immediately by telephone (collect), and return the original message to us at the address below via the U.S. Postal Service.

IF YOU DID NOT RECEIVE ALL OF THE PAGES OF THIS TRANSMISSION, OR IF ANY OF THE PAGES ARE ILLEGIBLE, PLEASE CALL 617.720.3500 IMMEDIATELY.

Wolf Greenfield Fax Number: 617.720.2441

Wolf, Greenfield & Sacks, P.C. | 600 Atlantic Avenue | Boston, Massachusetts 02210-2206
617.720.3500 | fax 617.720.2441 | www.wolfgreenfield.com

PATENTS TRADEMARKS COPYRIGHTS TECHNOLOGY TRANSFERS LITIGATION

23A

Table 2. Identification of the optimal CpG motif for Murine IL-6 production and B cell activation.

ODN	SEQUENCE (5'-3')	IL-6 (pg/ml) ^a				SI ^b	IgM (ng/ml) ^c
		CH12.LX	SPLENIC B CELL	CH12.LX	SPLENIC B CELL		
512	(SEQ ID No:28)	TCCATGTCGGTCTCTGATGCT	1300 ± 106	627 ± 43	5.8 ± 0.3	7315 ± 1324	
1637	(SEQ ID No:33)	.....C.....	136 ± 27	46 ± 6	1.7 ± 0.2	770 ± 72
1615	(SEQ ID No:34)	.....G.....	1201 ± 155	850 ± 202	3.7 ± 0.3	3212 ± 617
1614	(SEQ ID No:35)	.....A.....	1533 ± 321	1812 ± 103	10.8 ± 0.6	7558 ± 414
1636	(SEQ ID No:36)	.....A.....	1181 ± 76	947 ± 132	5.4 ± 0.4	3983 ± 485
1634	(SEQ ID No:37)	.....C.....	1049 ± 223	1671 ± 175	9.2 ± 0.9	6256 ± 261
1619	(SEQ ID No:38)	.....T.....	1555 ± 304	2908 ± 129	12.5 ± 1.0	8243 ± 698
1618	(SEQ ID No:7)	.....A..T.....	2109 ± 291	2596 ± 166	12.9 ± 0.7	10425 ± 674
1639	(SEQ ID No:3)	.....AA..T.....	1827 ± 83	2012 ± 132	11.5 ± 0.4	9489 ± 103
1707	(SEQ ID No:39)	.....A..TC.....	ND	1147 ± 175	4.0 ± 0.2	3534 ± 217
1708	(SEQ ID No:40)	.....CA..TG.....	ND	59 ± 3	1.5 ± 0.1	466 ± 109

Dots indicate identity; CpG dinucleotides are underlined; ND= not done

^aThe experiment was done at least three times with similar results. The level of IL-6 of unstimulated control cultures of both CH12.LX and splenic B cells was ≤ 10 pg/ml. The IgM level of unstimulated culture was 547 ± 82 ng/ml. CpG dinucleotides are underlined and dots indicate identity.

^b[³H] Uridine uptake was indicated as a fold increase (SI: stimulation index) from unstimulated control (2322.67 ± 213.68 cpm). Cells were stimulated with 20 μM of various CpG O-ODN. Data present the mean ± SD of triplicates

^cMeasured by ELISA.